



Pen and Paper Method

Track Your Sleep By Hand

Track your Sleep by Hand



If you choose to use this option, be sure to make copies of the Blank Sleep Diary on page 8.

Using military time will make it easier to do the calculations. Refer to the table below to convert standard time into military time for tracking your sleep on the Sleep Diary.

Converting Standard Time to Military Time

12 AM = 0000	12 PM = 1200
1 AM = 0100	1 PM = 1300
2 AM = 0200	2 PM = 1400
3 AM = 0300	3 PM = 1500
4 AM = 0400	4 PM = 1600
5 AM = 0500	5 PM = 1700
6 AM = 0600	6 PM = 1800
7 AM = 0700	7 PM = 1900
8 AM = 0800	8 PM = 2000
9 AM = 0900	9 PM = 2100
10 AM = 1000	10 PM = 2200
11 AM = 1100	11 PM = 2300

Converting Hours to Minutes

Hours to Minutes		
1	=	60
2	=	120
3	=	180
4	=	240
5	=	300
6	=	360
7	=	420
8	=	480
9	=	540
10	=	600
11	=	660
12	=	720

When you get up tomorrow morning, use the guidelines below to learn how to complete your Sleep Diary.

TODAY'S DATE	→	4/19/2016
1. What time did you get into bed?	A	2210
2. What time did you try to go to sleep?	B	2230
3. How long did it take you to fall asleep?	C	30
4. How many times did you wake up DURING THE NIGHT?	D	3
5. In total, how long did these awakenings last?	E	50
6. What time was your final awakening?	F	0600
7. What time did you get out of bed for the day?	G	0630
8. How many minutes did you nap yesterday?	N	30

Write the date of the morning you are completing the Sleep Diary.

Write the time you got into bed. This may not be the time that you began "trying" to fall asleep, but rather when you got into bed.

Record the time you began "trying" to fall asleep.

Beginning at the time you recorded for question 2, how long did it take you to fall asleep?

How many times did you wake up between the time you first fell asleep and your final awakening?

What was the total time you were awake between the time you first fell asleep and your final awakening. In this example, Robert woke 3 times; twice for 10 minutes and once for 30 minutes. Robert added them together to get a total of 50 minutes (10 + 10 + 30) awake in the middle of the night.

Record the last time you woke up in the morning.

What time did you get out of bed with no further attempt at sleeping? This may be different from your final awakening time. In our example, Robert woke up at 6:00 a.m. but did not get out of bed until 6:30 a.m.

Record the total number of minutes you either napped or dozed off yesterday.

Example—Robert’s Sleep Diary

Robert used his completed Sleep Diary to calculate values for each of the sleep measures on the bottom left of the table. Here’s how Robert calculated these values:

Step 1: TOTAL TIME IN BED (Row H)

= the time between when Robert tried to go to sleep and when he got out of bed.

On 4/19/15, Robert got out of bed at 0630. He tried to go to sleep at 2230 the night before. To determine how many minutes this is, Robert first determined how many hours passed between 2230 and 0630. He determined that 8 hours passed between his bedtime and his wake time. Then, he looked at the conversion tables on page 15 to determine that 480 minutes are in 8 hours. Robert used this same process to determine the Total Time in Bed for each of the 7 days of the Sleep Diary. (Row H).

TOTAL TIME IN BED B to G =	H	480
PRE-SLEEP TIME IN BED A to B =	I	20
SNOOZE TIME F to G =	J	30
TOTAL WAKE TIME C + E + J =	K	110
TOTAL SLEEP TIME H – K =	L	370
SLEEP EFFICIENCY (L ÷ H) x 100 =	M	(370/480) × 100 = 77%
L + N =	Z	400

Step 2: PRE-SLEEP TIME IN BED (Row I)

= the time Robert spent in bed before he attempted to sleep.

On 4/19/15, Robert got into bed at 2210 and tried to go to sleep at 2230. Therefore, he spent 20 minutes in bed before he tried to go to sleep. Robert used this same procedure to complete each of the 7 days recorded on the Sleep Diary (Row I).

Step 3: SNOOZE TIME (Row J)

= the amount of time Robert remained in bed after his final awakening.

On 4/19/15, Robert woke up at 0600 and he got out of bed at 0630. Therefore, his snooze time was 30 minutes. Robert used this same procedure to complete each of the 7 days recorded on the Sleep Diary (Row J).

Step 4: TOTAL WAKE TIME (Row K)

= the total amount of time Robert was awake between the time he tried to go to sleep and the time that he got out of bed.

On 4/19/15, Robert was awake for 30 minutes from the time he tried to go to sleep until he was sleeping (Row C), for 50 minutes in the middle of the night (Row E), and an additional 30 minutes of Snooze Time (Row J). Robert added these 3 values for a total of 110 minutes. Robert used this same procedure to complete each of the 7 days recorded on the Sleep Diary (Row K).

Step 5: TOTAL SLEEP TIME (Row L)

= the total amount of actual sleep between Robert's bedtime and his wake time.

On 4/19/15, Robert was in bed for 480 minutes, but he was awake for 110 minutes. Subtracting 110 from 480, Robert found that his total sleep time was 370 minutes. Robert used this same procedure to complete each of the 7 days recorded on the Sleep Diary (Row L).

Step 6: SLEEP EFFICIENCY (Row M)

= the percentage of time while Robert was in bed that he was actually sleeping.

On 4/19/15, Robert was sleeping for 370 of the 480 minutes he was in bed. Robert divided by 370 by 480 to get 0.77. He multiplied this number by 100 to find a Sleep Efficiency of 77%. Robert used this same procedure to complete each of the 7 days recorded on the Sleep Diary (Row M).

Step 7: AVERAGE VALUES in the Last Column

To determine the average values for the week, Robert calculated the average for each row of data by adding them all up and dividing by 7 (since there are 7 days of data). If Robert had only recorded 6 days of Sleep Diary, he would divide the total by 6 instead of 7. To find the average TOTAL TIME IN BED, Robert added $480 + 430 + 420 + 470 + 460 + 490 + 500$. He divided the total of 3250 by 7, to get an average Total Time in Bed of 464 minutes. Robert used this same procedure to complete each of the cells in the last column of the worksheet.

Step 8: TOTAL SLEEP TIME, INCLUDING NAPS (Row Z)

= the total amount of sleep Robert had over the past 24-hour period.

On 4/19/15, Robert obtained 370 minutes of sleep during the night (Row L). He also napped for 30 minutes yesterday (Row N). To find his total sleep time over the past 24 hours, Robert added the 370 minutes of sleep at night to the 30 minutes of sleep from yesterday, for a total sleep time, including naps, or 400 minutes. Robert used this same procedure to complete each of the 7 days recorded on the Sleep Diary (Row Z).



Understand How You Learned to Sleep Poorly— Tracking by Hand

- **Compare the numbers in Row H (Total Time in Bed) and Row L (Total Sleep Time).**

Is there a difference between these two numbers? Were you in bed for a lot longer than you were actually asleep? If yes, how much longer were you in bed? You will need to have a good fit between your time in bed and your actual sleep time to improve your sleep.

- **Look at Row M, “Sleep Efficiency”.**

This number shows the percentage of time you were asleep while you were in bed at night. Was your average “Sleep Efficiency” less than 85%? To improve your sleep, you’ll want to work towards being asleep for about 85% of the time you are in bed.

- **Look at Row C, minutes to fall asleep.**

How many nights of the week did it take you 30 minutes or longer to fall asleep?

- **Look at Row E, “Minutes Awake in the Middle of the Night.”**

How much time did you spend awake in the middle of the night? How many nights of the week were you awake for 30 minutes or more during the middle of the night? Do you find yourself struggling to return to sleep when you awaken in the middle of the night?

- **Compare the times in Row F (final awakening) and Row G (time you got out of bed for the day).**

Is there a difference between these two numbers? After your final awakening, did you stay in bed trying to return to sleep? If so, about how long did you stay in bed? Was it more than 15 minutes?

Each of these situations provides you with the opportunity to “learn” how to sleep poorly. In other words, if you have been lying awake in bed struggling to fall back asleep, you have been training yourself to associate your bed with being frustrated and restless. And, frustration and restlessness *do not* set the stage for sleep. **To unlearn this association, you will need to limit your time awake in bed.** You’ll be given some specific guidance on how to do this below.

TOTAL TIME IN BED B to G =	H	480
PRE-SLEEP TIME IN BED A to B =	I	20
SNOOZE TIME F to G =	J	30
TOTAL WAKE TIME C + E + J =	K	110
TOTAL SLEEP TIME H – K =	L	370
SLEEP EFFICIENCY (L ÷ H) x 100 =	M	(370/480) X 100 = 77%
L + N =	Z	400

1. What time did you get into bed?	A	2210
2. What time did you try to go to sleep?	B	2230
3. How long did it take you to fall asleep?	C	30
4. How many times did you wake up DURING THE NIGHT?	D	3
5. In total, how long did these awakenings last?	E	50
6. What time was your final awakening?	F	0600
7. What time did you get out of bed for the day?	G	0630

Robert's Sleep Diary

**Average: Add up the numbers in each row, divide by the number of days of data recorded, and write that number below. For a full week, divide by 7.

TODAY'S DATE	→	4/19/2016	4/20/2016	4/21/2016	4/22/2016	4/23/2016	4/24/2016	4/25/2016	AVG**
1. What time did you get into bed?	A	2210	2300	2320	2300	2200	2210	2230	
2. What time did you try to go to sleep?	B	2230	2320	2320	2320	2240	2250	2240	
3. How long did it take you to fall asleep?	C	30	50	90	10	30	20	20	36
4. How many times did you wake up DURING THE NIGHT?	D	3	3	1	0	2	0	2	1.6
5. In total, how long did these awakenings last?	E	50	90	20	0	50	0	70	40
6. What time was your final awakening?	F	0600	0550	0610	0600	0530	0640	0640	
7. What time did you get out of bed for the day?	G	0630	0630	0620	0630	0620	0700	0700	
8. How many minutes did you nap yesterday?	N	30	60	40	30	0	0	20	26
9. How would you rate the quality of your sleep?*	Q								
WORKSHEET									
TOTAL TIME IN BED B to G =	H	480	430	420	470	460	490	500	464
PRE-SLEEP TIME IN BED A to B =	I	20	20	0	20	40	50	10	23
SNOOZE TIME F to G =	J	30	40	10	30	50	20	20	29
TOTAL WAKE TIME C + E + J =	K	110	180	120	40	130	40	110	104
TOTAL SLEEP TIME H - K =	L	370	250	300	430	330	450	390	411
SLEEP EFFICIENCY (L ÷ H) x 100 =	M	(370/480) X 100 = 77%	(250/430) X 100 = 58%	(300/420) X 100 = 71%	(430/470) X 100 = 91%	(330/460) X 100 = 72%	(450/490) X 100 = 92%	(390/500) X 100 = 78%	77%
L + N =	Z	400	310	340	460	330	450	410	385

*9. Choose one: 1 = Very poor, 2 = poor, 3 = fair, 4 = good, 5 = very good

Sleep Diary

Average: Add up the numbers in each **row, divide by the number of days of data recorded, and write that number below. For a full week, divide by 7.

TODAY'S DATE →	A	B	C	D	E	F	G	N	Q	AVG**
1. What time did you get into bed?										
2. What time did you try to go to sleep?										
3. How long did it take you to fall asleep?										
4. How many times did you wake up DURING THE NIGHT?										
5. In total, how long did these awakenings last?										
6. What time was your final awakening?										
7. What time did you get out of bed for the day?										
8. How many minutes did you nap yesterday?										
9. How would you rate the quality of your sleep?*										
WORKSHEET										
TOTAL TIME IN BED: B to G =										
PRE-SLEEP TIME IN BED A to B =										
SNOOZE TIME F to G =										
TOTAL WAKE TIME C + E + J =										
TOTAL SLEEP TIME H - K =										
SLEEP EFFICIENCY (L ÷ H) x 100 =										
L + N =										

*9. Choose one: 1 = Very poor, 2 = poor, 3 = fair, 4 = good, 5 = very good

Sleep Efficiency Progress Worksheet

Week-by-Week



Now that you have calculated your **Allowable Time in Bed**, you can determine your personal window of time to be in bed at night. This is your **Personalized Sleep Prescription**.

- You should begin by picking a Wake Time that will assure that you will be able to meet all of your obligations throughout the week.
- Then, count backwards by the number of hours and minutes in your Allowable Time in Bed to find your Earliest Bedtime. For example, if you have to be out of bed by 6:00 am on Wednesday mornings each week, you would select 6:00 am as your Wake Time for all 7 days of the week. Using 6:00 am as the starting point, you can count backwards to determine your Earliest Bedtime. If your **Allowable Time in Bed** recorded above is 6½ hours, your Earliest Bedtime would be 11:30 pm.

My Personalized Sleep Prescription:

Earliest Bedtime: _____

Wake Time: _____

My Personalized Sleep Prescription Guideline:

I will not get into bed until my Earliest Bedtime of _____ and

I will not stay in bed past my Wake Time of _____ .